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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,275	12/02/2003	Hui-Kai Chou	ADTP0112USA	1274
27765	7590	08/10/2005	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			TRAN, THUY V	
			ART UNIT	PAPER NUMBER

2821

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

4A

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/707,275	CHOU, HUI-KAI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thuy V. Tran	2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 07/15/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This is a response to the Applicant's Request for Continued Examination filed on July 15<sup>th</sup>, 2005. In virtue of this request, claims 1-11 were previously filed; claims 12-22 are newly added; and thus, claims 1-22 are now presented in the instant application.

#### ***Request for Continued Examination entered***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 15<sup>th</sup>, 2005 has been entered.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Yajima et al. (Pub. No.: US 2001/0050735 A1).

With respect to claim 1, Yajima et al. discloses, in Fig. 19, a backlight source disposed under a display panel, the backlight source comprising a plurality of parallel U-shaped lamps [35]; each of the U-shaped lamps has an inner surface, an outer surface, and a high voltage electrode [35c] and a low voltage electrode [35d]; each of the U-shaped lamps being bent in a reverse direction to the adjacent U-shaped lamps so that the high voltage electrodes [35c] are

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disposed on two sides (left and right sides) of the display panel, and the high voltage electrode of each of the U-shaped lamps adjoining (in contact with one another at common ground; see Fig. 19) the low voltage electrode of another U-shaped lamps.

With respect to claim 2, Yajima et al. discloses that the backlight source is installed in a direct-type backlight panel unit (which is television; see paragraph [0001], line 3-4).

With respect to claim 3, Yajima et al. discloses, in Fig. 13, that the direct-type backlight unit comprises a diffuser [52] disposed between the display panel and the plurality of the U-shaped lamps [35] for scattering a light source generated by the plurality of the U-shaped lamps to the display panel, a light diffuser plate [50] disposed between the diffuser [52] and the plurality of the U-shaped lamps [35] for transmitting the light source to the diffuser [52], and a reflecting plate [36] disposed under the plurality of the U-shaped lamps [35] for reflecting the light source to the light diffuser plate [50].

With respect to claim 4, Yajima et al. discloses, in Fig. 13, that the direct-type backlight panel unit further comprises a housing [500] disposed under the reflecting plate [36] for surrounding the reflecting plate [36], and a bezel [800] for assembling the display panel and the backlight source.

With respect to claim 5, Yajima et al. discloses that the U-shaped lamp is a cold cathode fluorescent lamp (CCFL) (see paragraph [0008], line 4).

With respect to claim 6, Yajima et al. discloses, in Fig. 19, that the neighboring U-shaped lamps [35] alternately face two opposite sides of the display panel.

With respect to claim 7, Yajima et al. discloses, in Fig. 19, that the inner surface of the U-shaped lamp [35] is adjacent to the inner surface of an adjacent U-shaped lamp [35].

With respect to claim 8, Yajima et al. discloses, in Fig. 19, that the outer surface of the U-shaped lamp [35] is adjacent to the outer surface of an adjacent U-shaped lamp [35].

With respect to claim 9, Yajima et al. discloses, in Fig. 31C and 31F, that the backlight source further comprises a power supply [PS] for providing current and a control circuit (including a transformer and an inverter; see Fig. 31F) electrically connected to the power supply for driving the backlight source.

With respect to claim 10, Yajima et al. discloses, in Fig. 31F, that the control circuit comprises one inverter electrically connected to the high voltage electrode [35c] and the low voltage electrode (to the ground or 35d) of the corresponding U-shaped lamp.

With respect to claim 11, Yajima et al. discloses, in Fig. 31F, that the inverter comprises a direct current/alternating current (DC/AC) inverter.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Yajima et al. (Pub. No.: US 2001/0050735 A1).

With respect to claim 12, Yajima et al. discloses all of the claimed subject matter, as expressly recited in claim 1, except for each of the U-shaped lamps comprising a high voltage electrode at one end and a low voltage electrode at another end. However, this difference is not of patentable merits since such an arrangement of the locations of the high voltage and low

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voltage electrodes respectively by the two ends of the lamp does not affect or change the operation capability of the backlight source. Therefore, to configure the high electrode at one end and the low voltage electrode at another end of the U-shaped lamps upon a particular application or environment of use would have been deemed obvious to a person skilled in the art.

With respect to claim 13, Yajima et al. discloses that the backlight source is installed in a direct-type backlight panel unit (which is television; see paragraph [0001], line 3-4).

With respect to claim 14, Yajima et al. discloses, in Fig. 13, that the direct-type backlight unit comprises a diffuser [52] disposed between the display panel and the plurality of the U-shaped lamps [35] for scattering a light source generated by the plurality of the U-shaped lamps to the display panel, a light diffuser plate [50] disposed between the diffuser [52] and the plurality of the U-shaped lamps [35] for transmitting the light source to the diffuser [52], and a reflecting plate [36] disposed under the plurality of the U-shaped lamps [35] for reflecting the light source to the light diffuser plate [50].

With respect to claim 15, Yajima et al. discloses, in Fig. 13, that the direct-type backlight panel unit further comprises a housing [500] disposed under the reflecting plate [36] for surrounding the reflecting plate [36], and a bezel [800] for assembling the display panel and the backlight source.

With respect to claim 16, Yajima et al. discloses that the U-shaped lamp is a cold cathode fluorescent lamp (CCFL) (see paragraph [0008], line 4).

With respect to claim 17, Yajima et al. discloses, in Fig. 19, that each of the U-shaped lamps [35] is bent in a reverse direction to the adjacent U-shaped lamps so that the high and low voltage electrodes are positioned in two lines along the first direction.

With respect to claim 18, Yajima et al. discloses, in Fig. 19, that each of the U-shaped lamps has an opening defined by its two ends and bending portion, and one end of each of the U-shaped lamps is positioned inside the opening of one of the adjacent U-shaped lamps.

With respect to claim 19, Yajima et al. discloses, in Fig. 19, that each of the high voltage electrodes is adjacent to two low voltage electrodes positioned in the line.

With respect to claim 20, Yajima et al. discloses, in Fig. 31C and 31F, that the backlight source further comprises a power supply [PS] for providing current and a control circuit (including a transformer and an inverter; see Fig. 31F) electrically connected to the power supply for driving the backlight source.

With respect to claim 21, Yajima et al. discloses, in Fig. 31F, that the control circuit comprises one inverter electrically connected to the high voltage electrode [35c] and the low voltage electrode (to the ground or 35d) of the corresponding U-shaped lamp.

With respect to claim 22, Yajima et al. discloses, in Fig. 31F, that the inverter comprises a direct current/alternating current (DC/AC) inverter.

#### ***Remarks and conclusion***

6. Applicant's arguments filed on July 15<sup>th</sup>, 2005 have been fully considered but they are not persuasive.

With respect to Applicant's arguments on amended claim 1 in the first paragraph at page 7 of the amendment, the Examiner respectfully disagrees with Applicant's statement, which is "Therefore, none of the high voltage side electrodes 35C of a fold line discharge tube 35a adjoins any ground-side electrodes 35d of other fold-line discharge tubes 35a". As shown in Fig. 19, they are adjoining or in contact with one another at a common ground. For this reason, claim 1

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and its dependent claims 2-11 remain rejected as being anticipated by the teachings of Yajima et al. (see "Claim Rejections under 35 USC § 102" section for further details).

*Citation of relevant prior art*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Shimizu et al. (Pub. No.: US 2002/0030437 A1) discloses a light-emitting device and backlight for flat display.


*Inquiry*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

08/08/2005

  
THUY V. TRAN  
PRIMARY EXAMINER